Massachusetts Bay Transportation Authority

Deval L. Patrick, Governor | *Timothy P. Murray Lt.*, Governor | *Bernard Cohen*, Secretary and MBTA Chairman | *Daniel A. Grabauskas*, General Manager

September 24, 2007

Richard H. Doyle
Regional Administrator
Federal Transit Administration
55 Broadway, Suite 920
Cambridge, MA 02142

RE: Copley Station Accessibility Improvements
Section 106 Determination of Effect

Dear Mr. Doyle:

I am writing to you to request a Determination of Effect, pursuant to Section 106 of the National Historic Preservation Act, to perform test pitting and preconstruction reconnaissance at Copley Station. I wrote to you on June 19, 2007 with a similar request to perform test pitting work at the Old South Church (OSC), and again on July 26, 2007 for permission to temporarily remove and restore a set of benches that are part of the Boston Public Library (BPL) building. On July 31, 2007, the FTA made a Determination of No Adverse Effect for the test pitting work at the OSC, and the Massachusetts Historical Commission (MHC) subsequently concurred with this determination on August 14, 2007. On August 29, 2007, the FTA notified the Massachusetts Bay Transportation Authority (MBTA) that the OSC related test pitting work could commence.

Given the sensitivity of the performing similar test pitting work adjacent to the BPL, FTA convened a meeting with MBTA, MHC, and the Boston Landmarks Commission (BLC) to discuss the matter in great detail prior to MBTA issuing this request to FTA for approval to commence the required subsurface investigative work. As described in more detail below, the purpose of the test pitting work is to gather specific and accurate information concerning the physical relationship between an existing sewer line, the Library foundation and the Copley in-bound headhouse. The information obtained during the reconnaissance will be used to ensure that the proposed construction methodology for the project will adequately protect the BPL as well as the Copley Station in-bound headhouse. Additionally, the information obtained during this test pitting will determine whether or not the benches' structural integrity could potentially be compromised during the test pitting as well as during construction. Such information will dictate, what, if any, protective measures will be employed to ensure the BPL's historical resources, including the headhouse, will not be adversely impacted.

At the completion of the BPL area test pitting, the MBTA will report back to the FTA, the MHC, and the BLC its findings. If the findings require the MBTA to recommend a change in the project (such as moving the location of the elevator or undertaking differing construction methods, which may increase or change the impacts to the surrounding cultural resources) the MBTA will notify the FTA of its recommendation of the proposed changes. The MBTA acknowledges that such changes may result in a re-evaluation of the environmental review, including a re-evaluation under NEPA, Section 106 and/or Section 4(f) as determined by the FTA. If a re-evaluation is required, additional consultation and coordination with the MHC and BLC will be required.

Project Background:

The purpose of the proposed improvements at Copley Station is to make both the inbound and outbound entrances accessible to persons with disabilities and bring the stations into compliance with the Americans with Disabilities Act (ADA) as well as the MBTA's Key Station Plan. Additionally, the MBTA needs to make improvements to the underground areas of the station to make the platforms compatible with the new low floor accessible Green Line cars. Other improvements in terms of lighting, safety elements, and other components will also be made.

To make the station ADA-compliant, the MBTA is proposing to build an elevator adjacent to each of the existing Copley Station in-bound and outbound headhouses. The inbound elevator is proposed to be sited in an area currently containing the steps and the plinth (i.e., platform) of the BPL. The McKim Building of the BPL is listed on the National Register of Historic Places and is also a National Landmark. The Copley Station in-bound headhouse is also listed on the National Register of Historic Places.

In order to build the new elevator, the contractor is required to relocate the 26 feet of north-south section of sewer pipe 15 feet to the west. If the pipe is not relocated, the sewer line would run through the new station area approximately 4 feet above the floor. Moving this small section of the sewer line was always envisioned as part of the project. The attached graphics indicate the location of the existing headhouse as well as the location of the existing sewer line. It is necessary, prior to the sewer relocation, for the MBTA to develop more accurate information as to the location of the sewer line in relation to both the headhouse and the Library foundation, as well as assess the condition of the concrete box that the sewer is encased in.

In addition to the utility relocation, the contractor needs to build a support of excavation system around the elevator shaft. The original plan for the elevator was to develop a support of excavation system using a jet grouting technique. Upon further review by the MBTA and the contactor, both parties determined that the jet grouting system could result in too much of a risk to the Library due to the potential for migration of the grout via any unidentified conduit or air space, thereby causing damage to the Library as well as the collections.

The contractor will also propose a different support of excavation system that will have less impact on the Library. However, before the contractor can determine the best and most appropriate support system, the contractor needs to develop a pre-construction survey to determine soil conditions and the dimension of the existing foundation and determine if any underground structures currently exist in the work zone.

More specific information on physical relationship between the sewer line, the Library foundation and the Copley in-bound headhouse will allow the MBTA to prepare better construction management plans for the area. More specific information is also needed on the condition of the sewer and the concrete box that the sewer line is encased in. A better construction management plan, which relies on accurate information on subsurface conditions, will minimize any unanticipated impacts to both the Library and the headhouse during construction.

The MBTA believes that the best way to develop this information is to perform test pitting and reconnaissance. One of the purposes of the test pits is to determine the exact location of and condition of a 30" sewer line which wraps around the headhouse. The 30" sewer line runs parallel to the building and in some places, just beneath the bench structures. The granite

benches line the northern face of the BPL and run nearly the entire length of the McKim Building. These benches are in segments approximately 4 feet long and approximately 3 feet wide. As a result, while the sewer line appears on the drawings to be 4 feet from the building face, the area between the sewer line and the headhouse is even smaller

While the test pitting activity will provide better and more accurate information, it does have the potential to adversely affect cultural resources, specifically the Library benches. The MBTA has examined the feasibility of less invasive methods to obtain the required information, however, those methods were found to be inappropriate and unlikely to result in useful information. The alternative methods that the MBTA evaluated included:

1. Review of existing design drawings or as-builts: The MBTA is in possession of design drawings that were developed in 1913 when the Copley headhouse was constructed. At the time the headhouse was built, the section of the sewer line was rerouted to wrap around the outside footprint of the headhouse. It appears that the benches were taken out at the time of the sewer line installation and the headhouse construction, and then replaced when the work was completed. The design drawings indicate that the sewer is four feet from the face of the building. These drawings, however, are not as-builts and the MBTA cannot verify the accuracy of the drawings without performing a test pit.

2. Ground penetrating radar: Ground-penetrating radar (GPR) is useful to search for unknown underground structures. The degree of accuracy of the GPR is such that the information provided would not help us to distinguish between the various structures (the sewer line, the station structure and the building foundation) all of which are closely entwined within feet of each other. GPR will not distinguish which structure is which and therefore the information gained will not be useful to the project.

3. Telescoping: Telescoping of the sewer line may provide some information regarding the condition of the sewer line. It will not, however, provide any information as to where the concrete box in which the sewer line is in location to the building foundation and the benches. While telescoping the line may provide some limited information on the sewer, it does not provide any information on the Library foundation which is critically needed. Additionally, to perform this work, the sewer line would need to be taken out of operation. Given the importance of the line to the area, and the lack of sewer redundancy in the area, this is not a practical solution.

Given that these alternative methods were found to be infeasible or of little utility, the MBTA has determined that the best course of action is to perform site assessment via test pitting. All of the test pitting and reconnaissance will be performed in accordance with a protocol which has been developed in consultation with the Library, BLC, the MHC, in its role as the State Historic Preservation Officer (SHPO) as well as your staff. The protocol includes proper means and methods to mitigate any potential adverse impact to either the Library or to the Copley in-bound headhouse and ensures that the test pitting work will be done in a manner that protects the resources. The protocol also lays out that all feasible steps to protect the resources are taken and that the benches at the Library are removed if and only if it has been determined that less invasive techniques (such as shoring or underpinning of the benches) are either infeasible or would result in more impact. Finally, the protocol also ensures that any steps taken by the MBTA and its contractor are taken only after proper consultations with FTA, MHC, the Project Conservator, the BLC and the Library have occurred.

After extensive consultation with FTA and MHC, the MBTA believes that the appropriate course of action, in order to comply with Section 106, is for the FTA to issue a Determination of Adverse

Effect for the BPL-area test pitting and potential impact to the benches. In accordance with the NEPA process, this recommendation would be provided to the SHPO for their review and concurrence with that Determination. This Determination would be made pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800). It should be noted that for the MBTA to satisfy its state approval requirements from the Massachusetts Historical Commission pursuant to Chapter 254 of the Acts of 1988 (950 CMR 71.00), any requirements that may result from specific preservation restrictions on the BPL will be addressed by the BPL and the Massachusetts Historical Commission. It is MBTA understanding that BPL would seek permission directly from the MHC due to the fact that the preservation restriction is held by and between the BPL and MHC.

In order to mitigate the Adverse Effect Determination, the MBTA is proposing that all of the consulting parties (FTA, SHPO, MBTA, and BLC) enter into a Memorandum of Agreement (MOA), which details the steps required to mitigate any impacts to the Library and the headhouse from the test pitting and reconnaissance work that may result The protocol described above will be clearly articulated in the proposed MOA. I am attaching a proposed draft of an MOA and the corresponding test pitting protocol.

Once a Determination is made, and the MHC as well as the Advisory Council on Historic Preservation (ACHP) have had adequate opportunity to review and consult on this determination, the MOA can be executed. When the test pitting work is completed, the MBTA will report its findings back to the FTA, MHC and BLC. Based on the information gathered during the test pitting operations, the MBTA will also make a recommendation as to whether or not any changes to the proposed project are warranted. At that time, the MBTA will request the FTA to determine what re-evaluation of any impacts identified is needed.

I appreciate your attention to this matter. I strongly believe that this approach is fully consistent with our mutual obligations to protect historic resources. If you have any questions, do not hesitate to contact me.

Sincerely,

Daniel A. Grabauskas
General Manager

Attachments

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